

## 2. Listing of the Claims:

1 - 75. Canceled.

76. (Currently Amended) A device for in-situ measurement and recording of at least one environmental parameter in a process, said device comprising:

a portable single unit that may be attached to an object;

the portable single unit further comprising a sensor for detecting said environmental parameter and converting to a sensor output;

a data logger coupled to said sensor for receiving and logging said sensor output; and

a communication module for communicating said sensor output; and

means for attaching said sensor and said data logger to an object such that said sensor and said data logger form a portable single unit.

77. (Previously Presented) The device of claim 76 wherein said data logger comprises a timestamping module for recording a timestamp with said sensor output.

78. (Previously Presented) The device of claim 76 wherein said communication module comprises a transmitter and a receiver.

79. (Previously Presented) The device of claim 76 wherein said communication module comprises an RF (radio frequency) communication module.

80. (Previously Presented) The device of claim 76 further comprising a display device.

81. (Previously Presented) The device of claim 76 wherein said sensor is configured to detect a presence of electrostatic field.

82. (Previously Presented) The device of claim 81 wherein said sensor is configured to measure a magnitude of said electrostatic field.

83. (Previously Presented) The device of claim 82 wherein said sensor is configured to detect a change in said electrostatic field.

84. (Previously Presented) The device of claim 76 wherein said sensor is configured to detect an electrostatic discharge.

Appl. No. 10/791,070  
Reply dated November 24, 2004  
Reply to Office Action mailed August 24, 2004

85. (Previously Presented) The device of claim 84 wherein said sensor is configured to measure a magnitude of said electrostatic discharge.

86. (Previously Presented) The device of claim 76 wherein said data logger comprises an analog to digital converter (ADC) to convert said sensor output into digital data.

87. (Previously Presented) The device of claim 86 further comprising signal processing circuitry coupled to said sensor for processing said sensor output.

88. (Previously Presented) The device of claim 87 further comprising means for communicating said sensor output.

89. (Previously Presented) The device of claim 88 wherein said means for communicating comprises a transmitter and a receiver.

90. (Previously Presented) The device of claim 87 further comprising an RF (radio frequency) communication module.

91. (Previously Presented) The device of claim 76, wherein said portable single unit moves through at least one of a manufacturing, storage, and transit process while attached to the object.

92. (Currently Amended) A device for in-situ measurement and recording of at least one environmental parameter ~~in-a-process~~, said device comprising:

a portable single unit that may be attached to an object;

the portable single unit further comprising means for detecting said environmental parameter and converting to a sensor output; and means for receiving and logging said sensor output; and

~~means for attaching said means for detecting and said means for receiving to an object as a portable single unit.~~

93. (Previously Presented) The device of claim 92 wherein said means for receiving and logging comprises a timestamping module for recording a timestamp with said sensor output.

Appl. No. 10/791,070

Reply dated November 24, 2004

Reply to Office Action mailed August 24, 2004

94. (Previously Presented) The device of claim 92, wherein said portable single unit moves through at least one of a manufacturing, storage, and transit process while attached to the object.

95. Cancelled.

96. Cancelled.

97. (New) The device of Claim 76 further comprising a piece of base equipment that comprises a communications module that reads the logged sensor data from the portable single unit when the portable single unit passes the piece of base equipment at some predetermined point during the process.

98. (New) The device of Claim 97, wherein the communications module in the piece of base equipment and the communications module in the portable single unit are each wireless communication modules.

99. (New) The device of Claim 92 further comprising a piece of base equipment that comprises a communications module that reads the logged sensor data from the portable single unit when the portable single unit passes the piece of base equipment at some predetermined point during the process.

100. (New) The device of Claim 99, wherein the communications module in the piece of base equipment and the communications means in the portable single unit are each wireless communication modules.